UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2455	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/842,753	AHO ET AL.
	Examiner	**Art Unit**	
	ASAD M. NAWAZ	2455	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2010*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-10 and 13-17* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 5-10, 13-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the RCE received 3/10/10. Claims 1, 9, and 17 have

been amended. No claims have been newly added. Claims 3-4 and 11-12 have been

canceled. Accordingly, claims 1-2, 5-10, and 13-17 are pending.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claims 1-2, 5-10, and 13-17 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the written description requirement. The claim(s) contains subject

matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application

was filed, had possession of the claimed invention. Specifically it is unclear where the

specification discloses "a part common to all of the entirely formed messages and a part

specifying a message type". It is further unclear whether there is a single part in a

message that corresponds to each message (i.e., a sequence number of a segmented

packet), all of the messages having a part that is similar (i.e., common fields like

destination or source address) or any other variation.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-2, 5-10, and 13-17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Preston et al (US PGPUB 2002/0032853) hereinafter referred to as

Preston in view of Alden et al (US Patent No 6,101,543) hereinafter referred to as Alden

further in view of Olofsson et al (US Patent No 6,647,265) hereinafter referred to as

Olofsson.

As to claim 1, Preston teaches a method for transmitting information between

applications executed in a first and a second data transmission device in a data

transmission system (Fig 2a and 2b, 0035, a sending node and a receiving node)

using a data transmission protocol in the information transmission (0035,0046,

applications generate messages for transmission using one of several widely available

communication protocols such as a ACP, WAP, TCP, UDP, SMS)

using an application layer of the protocol stack of the first data transmission

device to entirely form messages from the information to be transmitted without using

information from other layers, said entirely formed messages being different from said

information to be transmitted and each including a header comprising a part common to

all of the entirely formed messages and a part specifying a message type (Figs 1, 2A-B,

0013, 0036, 0040-0042, messages are formed by the application layer in the protocol

stack and then passed down to lower layers, across the physical bearer, and up the

receiving node's protocol stack)

transferring the frames to a physical layer of said protocol stack for transmission (Fig 1, 0036, 0049, messages are transmitted over the physical layer)

and transmitting the frames between the first data transmission device and the second transmission device(0035, 0040-0042, one-way and two-way data exchange between sending and receiving nodes is taught).

However, Preston does not explicitly disclose inserting said entirely formed messages into data fields of frames of a lower layer of said protocol stack.

In analogous art, Alden teaches data transmission utilizing protocol stacks in which each protocol layer pre-pends headers of a lower layer to wrap information received from a higher layer, thereby inserting entirely forming messages into data fields of lower layer of said protocol stack (col 5, lines 15-27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Alden into those of Preston to make the system more robust. By inserting a message from a higher layer as the data payload of the lower layer, each corresponding layer of the receiving node only needs to process the header which corresponds to its layer. This would avoid any confusion that may arise from multiple headers and labels in a message as only the appropriate header would be visible at a time.

However, neither Preston nor Alden teach using a bearer specified by the second data transmission device.

Olofsson teaches using a bearer specified by the second data transmission device. (see abstract, col 3, lines 35-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Olofsson into those of Preston and Alden to make the system more efficient. By allowing a user to specify the preferred bearer, a number of failed transmissions due to improper bearer can be replaced by an initial negotiation phase allowing the system to achieve a greater efficiency in data transmission.

As to claim 2, Preston teaches the method according to claim 1, comprising transmitting at least two types of components in the messages, wherein the messages contain information on the type of the component transmitted in the message (0013, 0040).

Claim 10 is essentially the apparatus of claim 2 and thus rejected under similar rationale.

As to claim 5, Preston teaches the method according to claim 3, comprising providing messages with a data field to transmit information produced in the application (0036-0037).

Claim 13 is essentially the apparatus of claim 5 and thus rejected under similar rationale.

As to claim 6, Preston teaches the method according to claim 1, comprising using the protocol stack at least a session layer between the application layer and the

physical layer (Fig 2A) in which the protocol used therein contains data frames, containing at least a header field and a data field (data packet contains header and data fields), wherein the method further comprises transferring messages produced in the application layer to the data field of the data frames of the session layer (0040-0042).

Claim 14 is essentially the apparatus of claim 6 and thus rejected under similar rationale.

As to claim 7, Preston teaches the method according to claims comprising using WAP at least partly as the data transmission system (0035).

Claim 15 is essentially the apparatus of claim 7 and thus rejected under similar rationale.

As to claim 8, Preston teaches the method according to claim 1, comprising using the Internet data transmission network at least partly as the data transmission system (0060).

Claim 16 is essentially the apparatus of claim 8 and thus rejected under similar rationale.

As to claim 9, Preston teaches an apparatus comprising:

a communication network for transmitting information using a data transmission protocol between applications executed in a first and second data transmission device (Fig 2a and 2b, 0035, a sending node and a receiving node);

a protocol stack in said first and second data transmission device, the protocol stack comprising at least an application layer and a physical layer (0035, protocol

stacks such as OSI 7-layer model including an application layer and a physical layer are

disclosed),

wherein said application layer is configured for entirely forming messages from

the information to be transmitted without using information from other layers, said

entirely formed messages being different from said information being transmitted, and

each entirely formed message including a header comprising a part common to all of

the entirely formed messages and a part specifying a message type (Figs 1, 2A-B,

0013, 0036, 0040-0042, messages are formed by the application layer in the protocol

stack and then passed down to lower layers, across the physical bearer, and up the

receiving node's protocol stack),

wherein transmitting the frames between the first data transmission device and

the second transmission device(0035, 0040-0042, one-way and two-way data exchange

between sending and receiving nodes is taught).

However, Preston does not explicitly indicate said protocol stack is configured for

performing one or more protocol conversions for said entirely formed messages to

insert said entirely formed messages into data fields of frames of a lower layer of said

protocol stack and for transferring the frames to a physical layer of said protocol stack

for transmission.

In analogous art, Alden teaches data transmission utilizing protocol stacks in

which each protocol layer pre-pends headers of a lower layer to wrap information

received from a higher layer, thereby inserting entirely forming messages into data

fields of lower layer of said protocol stack (col 5, lines 15-27). The instant specification

discloses almost an identical "protocol conversion" process in which the protocol stack

inserts entirely formed messages into data fields of frames of a lower layer

It would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Alden into those of Preston to make the system

more robust. By inserting a message from a higher layer as the data payload of the

lower layer, each corresponding layer of the receiving node only needs to process the

header which corresponds to its layer. This would avoid any confusion that may arise

from multiple headers and labels in a message as only the appropriate header would be

visible at a time.

However, neither Preston nor Alden teach using a bearer specified by the second

data transmission device.

Olofsson teaches using a bearer specified by the second data transmission

device. (see abstract, col 3, lines 35-44).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Olofsson into those of Preston and Alden to

make the system more efficient. By allowing a user to specify the preferred bearer, a

number of failed transmissions due to improper bearer can be replaced by an initial

negotiation phase allowing the system to achieve a greater efficiency in data

transmission.

As to claim 17, Preston teaches a terminal comprising a processor for executing

applications (fig 5, 0062, a processor)

a protocol stack comprising at least an application layer and a physical layer

(0035, protocol stacks such as OSI 7-layer model including an application layer and a

physical layer are disclosed),

wherein said application layer is configured for entirely forming messages from

the information to be transmitted without using information from other layers, said

entirely formed messages being different from said information being transmitted and

each including a header comprising a part common to all of the entirely formed

messages and a part specifying a message type (Figs 1, 2A-B, 0013, 0036, 0040-0042,

messages are formed by the application layer in the protocol stack and then passed

down to lower layers, across the physical bearer, and up the receiving node's protocol

stack)

and a transmitter for transmitting information produced in the application to a data

transmission system for transmission of the information by means of a data

transmission protocol to an application executed in a second data transmission device

(0035, 0040-0042, one-way and two-way data exchange between sending and

receiving nodes is taught along with multiple protocols used in the transmission).

However, Preston does not explicitly indicate said protocol stack is configured for

performing one or more protocol conversions for said entirely formed messages to

insert said entirely formed messages into data fields of frames of a lower layer of said

protocol stack and for transferring the frames to a physical layer of said protocol stack

for transmission.

In analogous art, Alden teaches data transmission utilizing protocol stacks in which each protocol layer pre-pends headers of a lower layer to wrap information received from a higher layer, thereby inserting entirely forming messages into data fields of lower layer of said protocol stack (col 5, lines 15-27). The instant specification discloses almost an identical "protocol conversion" process in which the protocol stack inserts entirely formed messages into data fields of frames of a lower layer

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Alden into those of Preston to make the system more robust. By inserting a message from a higher layer as the data payload of the lower layer, each corresponding layer of the receiving node only needs to process the header which corresponds to its layer. This would avoid any confusion that may arise from multiple headers and labels in a message as only the appropriate header would be visible at a time.

However, neither Preston nor Alden teach using a bearer specified by the second data transmission device.

Olofsson teaches using a bearer specified by the second data transmission device. (see abstract, col 3, lines 35-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Olofsson into those of Preston and Alden to make the system more efficient. By allowing a user to specify the preferred bearer, a number of failed transmissions due to improper bearer can be replaced by an initial

negotiation phase allowing the system to achieve a greater efficiency in data

transmission.

Response to Arguments

6.   Applicant's arguments with respect to the claims have been considered but are

found not to be persuasive. Applicant argues in substance that the prior art does not

teach each entirely formed message including a header comprising a part common to

all of the entirely formed messages and a part specifying a message type.

7.   In response, it should be noted that the limitations are not clear and not disclosed

in the specification. Nevertheless, Preston teaches a message type (see paragraph

40). As to the common part, it is unclear what the limitation is exactly claiming (see 112

rejection above). Preston disclose both the first assumption outlined in the 112 rejection

at paragraph 0017. The second assumption is taught in paragraph 40. Therefore, as

best understood by the examiner, the prior art of record still meets the scope of the

limitations as currently claimed.

Conclusion

8.   The prior art previously made of record and not relied upon is considered

pertinent to applicant's disclosure. Burnett et al, US Patent No 5,633,869 patented May

27, 1997.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASAD M. NAWAZ whose telephone number is (571)272-3988. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Asad M Nawaz/
Primary Examiner, Art Unit 2455